

Are all localizing subcategories of stable homotopy categories coreflective?

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(This is a joint work with C. Casacuberta and J. Rosický)

We answer affirmatively the question in the title under a large-cardinal assumption (Vopěnka's principle) for homotopy categories of locally presentable stable model categories, and we prove similarly that colocalizing subcategories are reflective. This gives a partial solution to a number of open problems in the theory of triangulated categories.